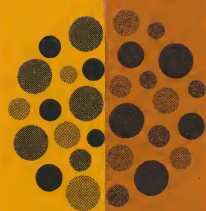


MODEL

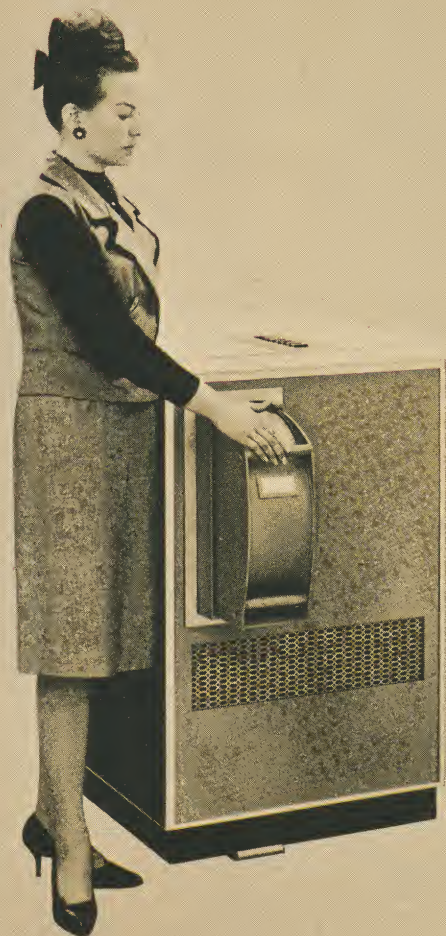
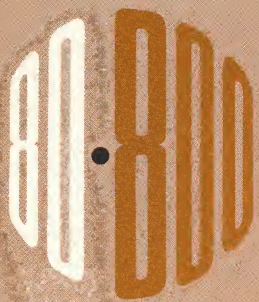
800



800

SERIES

Anelex® Random Access Disk Files



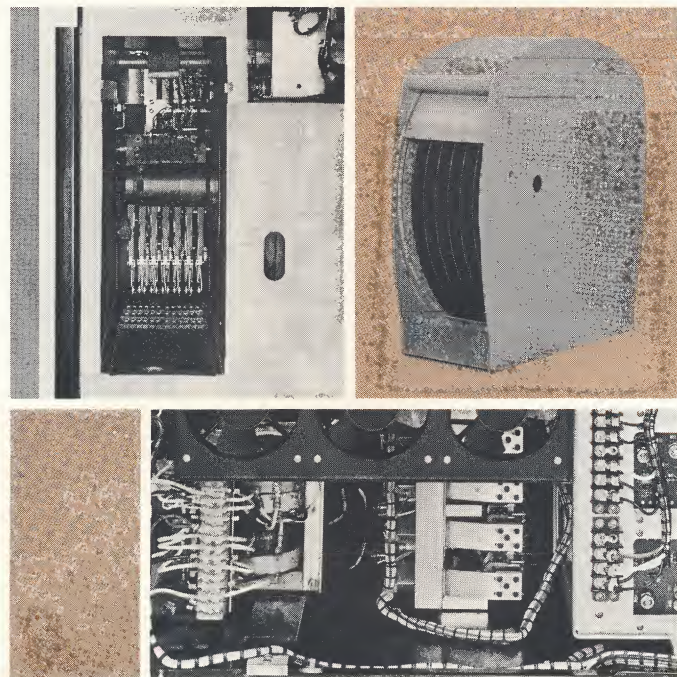
Model 80 Series Random Access Disk File

Unlimited capacity and fast access time are provided by the interchangeable Disk Kits of the Model 80. Access time, data packing and Disk Kit capacity are balanced to make this unit adaptable to the requirements of most medium and small scale data processing systems.

Each Kit contains six disks with a storage capacity of 2,000,000 per disk surface or 24,000,000 per Disk Kit. Because kits can be put in place and removed in just a few moments, there is no limit to the amount of information which can be stored. Kits are so designed that the disk package provides cover and protection for the disks when they are out of the machine.

The machine contains the Head Array and control electronics, as well as the mechanical unit which handles the Disk Kit. When a Disk Kit is inserted, the disks are automatically exposed to the Head Array. At the same time, the shaft for holding and revolving the disks is moved into position.

Organization of data storage is in terms of tracks, sectors and records. There are 100 concentric tracks per disk surface which are accessed by a single read/write head through positioner motion. The number of sectors may range from one to sixteen per disk. They may vary in number from Disk Kit to Disk Kit, but must be uniform within a single Kit. By definition, therefore, a record is the maximum amount of data which may be recorded on a track within a sector.

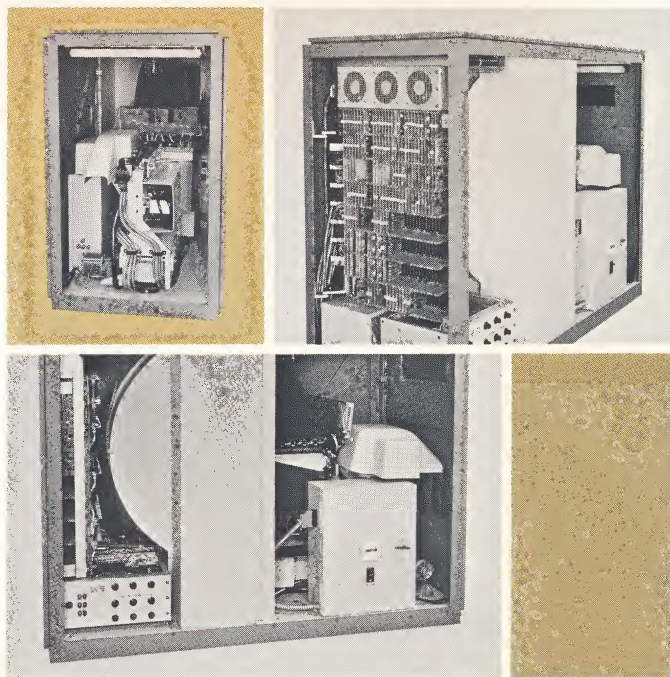


Model 800 Series Random Access Disk File

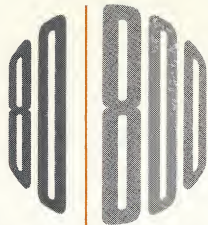
Capacity, speed of access and reliability are combined in the Anelex Model 800 Random Access Disk File to make it the most practical memory system for almost any computer. Modular design offers storage capacity from 60,000,000 to 201,600,000 bits with average access time at 100 msec. Proven mechanical techniques are coupled with solid state electronics to provide high reliability, simplicity of operation and ease of maintenance.

Data storage is provided by three to eight 34" magnesium disks. Two frequency systems are available at the customer's option. One provides storage of 10,080,000 bits per disk surface; the other, 12,600,000 bits per disk surface. Disks are rotated at a nominal 1200 rpm for 60 cps operation; 1000 rpm for 50 cps operation. To insure rigidity, disks are mounted on an 11½" housing. The drive motor is located inside this housing to reduce weight and facilitate addition or removal of disks.

The Model 800 utilizes read/write/erase heads which "fly" on a self-generated air bearing. As with the Model 80, organization of data is in terms of tracks, sectors and records. Through two distinct operations, the Primary Positioner drives the Head Array to one of ten positions, and the Fine Positioner simultaneously provides a further movement to one of ten positions within each of the ten Primary Positioner selections. A mechanical detent locks the head positioner at each address until a new address is generated.



Specifications



Specifications

SYSTEM — CHARACTERISTICS — DISK KITS HANDLER

Size of Frame — Less Door Panels

Length 31¾", Width 26½", Height 43½"

Weight — 500 lbs.

Power — 1.4 KW, 1400 Watts

115v, single phase, 60 cycle, 2 wire

System can be provided for 50 cycle power

230v, single phase, 60 cycle, 3 wire

208v, three phase, 60 cycle, 4 wire

Number of Movable Read/Write Heads —

1 per disk surface

2 per disk

12 per complete unit

Maximum Stroke of Movable Head Array —

2.0" nominal

Positioning Time — 75 msec

Rotational Speed — 2400 rpm nominal

Rotational Delay — 12.5 msec average

Transfer Rate — 400 KC, 2 bit parallel

SYSTEM — CHARACTERISTICS — DISK KITS

Size — Length 15¾", Width 5¾", Height 16½"

Weight — 12 lbs.

Number of Disks — 6

Number of Recording Surfaces — 12

Number of Sectors — 1 to 16, at user option

Number of Tracks — 100 per disk surface

Track Dimensions —

Center to Center..... .020" nominal

Read010" nominal

Write010" nominal

Erase018" nominal

File Capacity —

Bits/Track 20,000 maximum

Bits/Disk Surface 2,000,000 maximum

Bits/Disk 4,000,000 maximum

Bits/Disk Kits 24,000,000 maximum

ENVIRONMENTAL CONDITIONS

Operating —

65° F Minimum

90° F Maximum

80% RH Maximum

Shipping and Storage —

-20° F Minimum

140° F Maximum

98% RH Maximum

Heat Dissipation — 5,500 BTU/hour

SYSTEM CHARACTERISTICS

Size of Frame — Less Door Panels —

Length 72", Width 30", Height 50"

Allow 1" thickness for removable doors and panels.

Weight — 1500 lbs. maximum

Power —

220/380/440/AC ± 10%

3 phase, 4 wire, 50 or 60 cps ± 1 cps,

6 KW maximum

Number of Disks — three up to eight

Number of Movable

Read/Write/Erase Heads —

4 per disk surface

8 per disk

64 maximum for an 8 disk unit

Fixed Heads —

One or two supplied for clock. Fixed data heads available on special systems at extra cost.

Number of Tracks —

100 per zone

400 per disk surface

Track Density —

55 per inch nominal

Recording Safety Band —

0.020" nominal every 10 tracks

Track Dimensions —

Center to Center018" nominal

Read/Write012" nominal

Erase020" nominal

Maximum Stroke of Movable Head

Array — 1.980" nominal

Positioning Time Including

Detent Motion —

Maximum 150 msec

Average..... 100 msec

Minimum 90 msec

Rotational Speed —

1200 rpm nominal 60 cps

1000 rpm nominal 50 cps

Rotational Delay —

25 msec average @ 1200 rpm

30 msec average @ 1000 rpm

Number of Sectors —

Single Frequency..... 1 up to 32

Dual Frequency, 1 up to 32 and 48

File Capacity — Single Frequency —

Bits/Track 25,200 maximum

Bits/Zone 2,520,000 maximum

Bits/Disk

Surface 10,080,000 maximum

Bits/Disk 20,160,000 maximum

Bits/8 Disk .. 161,280,000 maximum

File Capacity — Dual Frequency —

	INNER ZONES	OUTER ZONES
Bits/Track	25,200	37,800
Bits/Zones (2) ..	5,040,000	7,560,000
Bits/Disk Surface	12,600,000	
Bits/Disk	25,200,000	
Bits/8 Disk	201,600,000	

Bit Density — 500 bits/inch maximum

Bit Rate — Single Frequency —

500 K bits/second–600 K bits/second
maximum instantaneous — 60 cps

417 K bits/second–500 K bits/second
maximum instantaneous — 50 cps

Bit Rate — Dual Frequency —

Inner zones same as single frequency
Outer zones,

750 K bits/second–900 K bits/second
maximum instantaneous at 60 cps

625 K bits/second–750 K bits/second
maximum instantaneous at 50 cps

ENVIRONMENTAL CONDITIONS

Operating —

60° F Minimum

90° F Maximum

80% RH Maximum

Shipping and Storage —

-20° F Minimum

140° F Maximum

98% RH Maximum

10G Shock from Bottom

Heat Dissipation —

18,000 BTU/hour maximum



Anelex Corporation

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